State of New Mexico Energy Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 8705

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RECEIVED

2009 治時紀主時所有 1 30 APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD

⁷ Operator Name and Address Reliant Exploration & Production, LLC. 3700 Kermit Highway Odessa, Texas 79764							251905	API Number			
	erty Code	-		LIB	BY MIN	roperty Name NERALS LL	C 1931			• Well No 9-1-K	
<u>37025</u> ⁹ Proposed Pool 1								¹⁰ Proposed	Pool 2		
			ravo Dome 96								
	· · · · · · · · · · · · · · · · · · ·				<u>'</u> Surfa	ice Locatio	n				
UL or lot no. K	Section 9	Township 19 North	Range 31 East	Lot I	dn	Feet from the 1700'	North/S	outh line	Feet from the 1899'	East/West line	County
ĸ	,	19 Nortin	NMPM			1700	So	uth	1099	West	Harding
			⁸ Prop	osed Bottom	Hole L	ocation If Di	fferent I	From Su	rface		
UL or lot no.	Section	Township	Range	Lot I	dn	Feet from the	North/S	outh line	Feet from the	East/West line	County
	L	• · · · · · ·	r	Addi	tional	Well Infor	nation	1			L
¹¹ Work	Type Code N		¹² Well Type C	e Code		¹³ Cable/Rotary R		- T	⁴ Lease Type Code P	¹⁵ Ground Le 44	evel Elevatio 138
	fultiple NO		¹⁷ Proposed 2600'			¹⁸ Formation TUBB		CA	¹⁹ Contractor APSTAR DRILLING	7/6/09 ^{20 Spi}	1d Date 12009
Depth to Grou	indwater 100'			Distance		rest fresh water v 000'	vell			n nearest surface was > 1000'	ater
	: Synthetic	20	mils thick (Clay 🔲 Pit V	olume:{			Drilling		-1000	
Close	d-Loop Sys	stem					Fresh Water x Brine Diesel/Oil-based Gas/Air				
			2	¹ Proposed	l Casin	g and Cem	ent Pr	ogram			
Hole Si	ze	Casing		Casing weig		Setting			acks of Cement	Estimated	TOC
12-1/4" 8-5/8"		24#		70	700'		_300SX	SURE	ACE		
			<u> </u>			<u> </u>	1				<u></u>
				<u>5.9#FG/</u>		2600'	/		_400SX	SURE	
							/				
22 Describe tl	ne proposed	5-1/	/2"	5.9#FG/	15.5# EN or PLU ional shee	2600' JG BACK, give	the data of		_400SX	SURF,	ACE
22 Describe ti zone. Descrit SEE ATTAC	ne proposed be the blowe	5-1	/2" this applicati n program, if	5.9#FG/	EN or PLU ional shee	2600' JG BACK, give tts if necessary. NSERVATI N 24 HO	the data of	OMM	_400SX	e and proposed new	v producti
22 Describe th zone. Describe SEE ATTAC 23 I hereby cer of my knowle constructed a	tify that the dge and bel	5-1 program. If out prevention information lief. I furthe to NMOCD	2"	5.9#FG/	15.5# EN or PLU ional shee UL CON WITHIN plete to th it will be	2600' JG BACK, give tts if necessary. NSERVATI N 24 HO re best	the data of ON C URS (OMM Of Be	sent productive zon	e and proposed nev EE NOTIFIE PERATIONS	v producti
22 Describe the zone. Describe t	tify that the dge and bel	5-1 program. If out prevention information lief. I furthe to NMOCD	2"	5.9#FG/	15.5# EN or PLU ional shee UL CON WITHIN plete to th it will be	2600' JG BACK, give tts if necessary. NSERVATI N 24 HO le best or an	the data of ON C URS (OMM OF BE IL CO	400SX sent productive zon ISSION TO EGINNING O	e and proposed nev EE NOTIFIE PERATIONS	v productiv
22 Describe th zone. Describe SEE ATTAC 23 I hereby cer of my knowle constructed a (attached) al	tify that the dge and belaccording to ternative C	5-1 program. If out prevention tief. I furthe to NMOCD DCD-approv	2"	5.9#FG/	15.5# EN or PLU ional shee UL CON WITHIN plete to th it will be	2600' JG BACK, give tts if necessary. NSERVATI N 24 HO le best or an	the data of ON C URS (O roved by	OMM OF BE IL CO	400SX sent productive zon ISSION TO EGINNING O	e and proposed nev EE NOTIFIE PERATIONS	v producti D
22 Describe ti zone. Descrit SEE ATTACI 23 I hereby cer of my knowle constructed at (attached) al Signature:	tify that the dge and bel according to ternative C	5-1 program. If out prevention tief. I furthe to NMOCD DCD-approv	2"	5.9#FG/	15.5# EN or PLU ional shee UL CON WITHIN plete to th it will be	2600' JG BACK, give ets if necessary. NSERVATI N 24 HO re best or an App Titl	the data of ON C URS (O roved by	IL CO	400SX sent productive zon ISSION TO GINNING O NSERVATIO	e and proposed nev EE NOTIFIE PERATIONS	ACE v productiv D S N
7-7/8 ²² Describe th zone. Describe SEE ATTAC ²³ I hereby cer of my knowle constructed at (attached) al Signature: Printed name:	tify that the dge and bel according to ternative C	5-1 program. If out prevention tief. I furthen to NMOCD DCD-approv VL. J. Yanderburg	2" this applicati n program, if given above r certify that guidelines ⊠ ed plan □.	5.9#FG/	15.5# EN or PLU ional shee UL CON WITHIN plete to th it will be	2600' JG BACK, give ets if necessary. NSERVATI N 24 HO re best or an App Titl	the data of ON C URS (O proved by	IL CO	400SX sent productive zon ISSION TO GINNING O NSERVATIO	EE NOTIFIE PERATIONS ON DIVISIO	ACE v productiv D S N

WITHIN 24 HOURS OF BEGINNING OPERATIONS

ATTACHMENT C-101 RELIANT EXPLORATION & PRODUCTION WELL 9-1-K

PROPOSED TD: 2600'

BOP PROGRAM:	0-700' None 700 – 2600' 9" annular 3000# Ragan Tuaras				
Casing:	Surface: 8-5/8" OD 24# J55 8rd ST&C new casing set at 700' 12-1/4" hole Centralizers from TD – Surface, every fourth joint				
	Production: 5 -1/2" OD new casing from 0-2600' 300' - 15.5# J55 8rd LTC 2300' - 5.9# 10rd FG 7 -7/8" hole - 5 centralizers				
	* This well will have fiberglass casing from the surface down to the productive interval (Tubb). Steel casing will be used across the Tubb. The fiberglass casing will at a minimum penetrate the Cimarron formation, with the optimum setting point being the midpoint of the Cimarron formation.				
Cement:	Surface – Circulate cement with 300sx class C – additives 2# C45, weight of 12.4# per gallon. Yield 2.14 and 1/8# of Celaflake per sx. Tail Cement 100sx class C 2%CACl with 1/8# per sx Celaflake Yield of 1.32# with weight of 14.8# per gallon				
	Production- Circulate cement with 400sx class C – additives 2# C45, weight of 12.4# per gallon. Yield 2.14 and 1/8# of Celaflake per sx. Tail Cement 100sx class C 2%CACl with 1/8# per sx Celaflake Yield of 1.32# with weight of 14.8# per gallon				
Mud	0-700' Fresh water/native mud. Wt 8.6-9.2ppg, Vis 32.=-36sec				
	700-2600' Fresh water/ Starch/Gel with ph control as needed. Wt 9.0-9.2ppg, Vis 28-29 sec 名の' た その'				
	Utilizing Metal Pits with a 20 ² -by-90" by 6' deep reserve lined pit with-12-ply-liner.				
	20 mil				

20 mil



LOCATION SPECIFICATION FOR STEEL PITS



Cellar can be 4X4X4 if using a screw-on wellhead

District I 1625 N. French Dr., Hobbs, Jistrict II 1301 W. Grand Avenue, Arte District III 1000 Rio Brazos Rd., Aztec, District IV 1220 S. St. Francis Dr., Sau	Lnergy, M :sia, NM 88210 , NM 87410 nta Fe, NM 87505	linerals & N OIL CONSI 1220 Sout	ERVATIOI th St. F Fe, NM	lesource 1 DIVISIC rancis (87505)N)r.	Submit	to Approp Sta Fe	Form C-102 d October 12, 2005 priote District Office ate Lease-4 Copies ee Lease-3 Copies MENDED REPORT
API Numbe	er	Pool Code				Pool Name		
30-021-2 Property Code	0498	96010	Property Nar		Bravo L	Dome		Well Number
37025		LIBBY MIN			931			9-1-K
OGRID No.			Operator Nan			1.0		Elevation
251905	RELIANT	EXPLORAT			JCTION, L	LC.		4438'
UL or lot no. Section To	wnship f	SUI Range	face Lo		North/South line	Feet from the	Eost/Wes	t line County
1 1		N. M. P. M.		1700'	SOUTH	1899'	WES'	
L		m Hole Loco	ution If	Differen	t From Sur	Ll face		L
UL or lot no. Section To		Range			North/South line		East/Wesl	t line County
Dedicated Acres Joint	or Infill Consolidation Code	e Order No.	<u> </u>					
No allowable will be as division.	signed to this completio	n until all inter	rests have	been co	nsolidated or	a non-stand	ard unit h	as been approved by th
1899'		SURFACE L NEW MEXM NAD 1 7=1779 X=7701 LAT.: N 35. LONG.: W 10	CO EAST 927 577.6 572.8 8891476			I herr conto to th belief eithei unlead includ locati well contr miner volun comp Signa Signa Signa Signa Signa Signa Stur shown field me o the s best	eby certify insed herei owns a sod minerto sod minerto sod minerto on or has at this loc act with a cl or work tary poolin ulsory pool ed by the visit ture ture ture ture ture ture ture tur	LI 4/16/09 Date Date Date CERTIFICATION That the well location plat was publied from actual surveys made by y surpension, and that be and correct to the inf.

WO# 071217WL-d (Rev. A) (KA)

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-144 July 21, 2008 For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.
	Closed-Loop System, Below-Grade 7	
Proposed Alt	ernative Method Permit or Closure P	lan Application
	it of a pit, closed-loop system, below-grade tank, o ure of a pit, closed-loop system, below-grade tank, o ification to an existing permit ure plan only submitted for an existing permitted or osed alternative method	or proposed alternative method
Instructions: Please submit one applic	ration (Form C-144) per individual pit, closed-loop syste	em, below-grade tank or alternative request
environment. Nor does approval relieve the operator	not relieve the operator of liability should operations result in r of its responsibility to comply with any other applicable go	
1. Operator: <u>Reliant Exploration & Production, L</u>	LC_	OGRID #: <u>251905</u>
Address: <u>3700 Kermit Highway</u> Odessa, To	exas 79764	
Facility or well name: <u>Libby Minerals LLC 19</u>	<u>31 No. 9-1-K_</u>	
API Number: 30 - 021 - 204	98 OCD Permit Number:	
U/L or Qtr/Qtr <u>K</u> Section <u>9</u> Tow	nship <u>19N</u> Range <u>31E</u> County: <u>Hardir</u>	ng
Center of Proposed Design: Latitude _35.88914	76° N Longitude <u>103.6534970° W</u> NAD: 🛛	1927 🔲 1983
Surface Owner: 🗋 Federal 🗌 State 🛛 Private	_	
2.		
\boxtimes <u>Pit</u> : Subsection F or G of 19.15.17.11 NM	AC	
Temporary: 🛛 Drilling 🔲 Workover	· · ·	
Permanent Emergency Cavitation] P&A	
	20 mil 🛛 LLDPE 🗌 HDPE 🗌 PVC 🗌 Other	
String-Reinforced		
Liner Seams: Welded K Factory Other	Volume: <u>850</u> bbl [Dimensions: L 80' x W 80' x D 6'
3. Closed-loop System: Subsection H of 19.1	5 17 11 NMAC	
	well Workover or Drilling (Applies to activities whi	ich require prior approval of a permit or notice of
intent)		
Drying Pad Dove Ground Steel Tanks	Haul-off Bins Other	
Lined Unlined Liner type: Thickness	mil 📋 LLDPE 🛄 HDPE 🛄 PVC 🗔] Other
Liner Seams: 🗌 Welded 🔲 Factory 📋 Othe	r	
4.		
Below-grade tank: Subsection I of 19.15.		
Volume:bbl Type of	fluid:	
Tank Construction material:		
Secondary containment with leak detection	□ Visible sidewalls, liner, 6-inch lift and automatic ov	erflow shut-off
Visible sidewalls and liner DVisible side	walls only Other	
	il 🗌 HDPE 🗌 PVC 🔲 Other	
5.		
Alternative Method:		
Submittal of an exception request is required.	Exceptions must be submitted to the Santa Fe Environment	ntal Bureau office for consideration of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)

Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)

 \boxtimes Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify

7.

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

Screen Netting Other_

Monthly inspections (If netting or screening is not physically feasible)

Signs: Subsection C of 19.15.17.11 NMAC

12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

Signed in compliance with 19.15.3.103 NMAC

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	priate district pproval.
 Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	Yes No
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🖾 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	□ Yes ⊠ No □ NA
 Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	□ Yes □ No ⊠ NA
 Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 🛛 No
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗌 Yes 🛛 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🛛 No
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	🗋 Yes 🛛 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	🗌 Yes 🛛 No
Within a 100 years Baadmin	

Within a 100-year floodplain.

FEMA map

🗌 Yes 🛛 No

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
 Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:
12. Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC
and 19.15.17.13 NMAC
 Previously Approved Design (attach copy of design) Previously Approved Operating and Maintenance Plan API Number:
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
attached.
14. Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal Vaste Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
 ^{15.} Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - ba

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16. Waste Removal Ciosure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13	
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment is facilities are required.	more than two
Disposal Facility Name: Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that <i>will not</i> be used for future see Yes (If yes, please provide the information below) No	rvice and operations?
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	AC
17. <u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable son provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate dis considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Jus demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	trict office or may be
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗍 Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	🗋 Yes 🗌 No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	🗋 Yes 🗌 No
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗋 Yes 🗋 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	🗋 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	🗋 Yes 🗋 No
Within a 100-year floodplain. - FEMA map	🗌 Yes 🗌 No
	· • • • • •
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure p by a check mark in the box, that the documents are attached.	lan. Please indicate,
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	
Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC	
Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC	
Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19	.15.17.11 NMAC
 Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC 	
Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC	
 Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards can Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC 	not be achieved)

Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Name (Print): Scott Vanderburg Title: President Signature:	19. Operator Application Certification: I hereby certify that the information submitted with this application is true, accu	irate and complete to the	he best of my knowledge and belief.
Signature:			
Borneroval: Fermit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature:		Date:	4)12/09
OCD Approval: © Formit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature:	e-mail address: <u>Scottv@floco2.com</u>	Telephone:	432-638-6455
Title: DISTRICT SUPERVISOR OCD Permit Number: "	20. OCD Approval: Permit Application (including closure plan) Closure l	Plan (only) 🔲 OCD	Conditions (see attachment)
Tide: DISTRICT SUPERVISOR OCD Permit Number: "Course Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Optimizer completion of the closure activities and submitting the closure report. The closure report is required to batim an approved closure plan prior to implementing on closure activities have been completed. Permit Number: Image: Closure Completion Date: Image: Closure Completion Date: Image: Closure Completion Date: Image: Closure Report Record Regarding Waste Removal [] On-Site Closure Method [] Alternative Closure Method [] Waste Removal (Closed-loop systems only) Image: Closure Completion Date: Image: Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bios Only: Image: Closure Completion Date: Image: Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bios Only: Image: Closure Closed Facility Permit Number: Disposal Facility Name: Disposal Facility Permit Number: Disposal Facility Permit Number: Vec the closed-loop system optimizer activities performed on or in actas that will not be used for future service and operations? Yee (If yee, pleas demonstrate compliance to the times below)] No Resport Report Attachment Closelity: Instructions: Each of the following items must be attached to the closure report. Please inditcate, by a check	OCD Representative Signature: Martino		Approval Date: <u>5/4/09</u>
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to best under the an approved closure plan prior to implementing any closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities. Please do not complete this section of the form until an approved plan, blease explain. Image: Closure Method: Closure Completion Date: Image: Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haut-off Bins Onty: Instructions: Please indentify the facility or facilities for where the liquids, drilling flatks and fill cuttings were disposed. Use attachment if more than two facilities were utilized. Disposal Facility Name: Disposal Facility Name: Disposal Facility Name: Disposal Facility Permit Number: Soft Recent Regarding Waste Concentrate complicate to the items below) No Required for impacted areas which will not be used for future service and operations? Soft RecEnting Macter Closure Formed on or in areas that will not be used for future service and operations? Soft RecEnting the Closure Contentiation Soft RecEnting the Advection Rates and Seeding Techn			
21: Closure Method: Waste Excavation and Removal On-Site Closure Method Waste Excavation and Removal Closure Approved plan, please explain. 23: Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Uitlize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized. Disposal Facility Name: Disposal Facility Permit Number: Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) No Required for impacted areas whick will not be used for future service and operations: Site Rechamiton (Photo Documentation) No Required for impacted areas whick will not be used for future service and operations: Site Rechamiton (Photo Documentation) No Boil Backfilling and Cover Installation Revegetation Application Rates and Seeding Technique Proof of Closure Notice (surface owner and division) Proof of Closure Notice (surface owner and division) Disposal Facility Name and Permit Number Disposal Facility Name and Permit Number Soft Backfilling and Cover Installation Revegetation Applicatin Results (required for on-site closure)	Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior The closure report is required to be submitted to the division within 60 days of	to implementing any the completion of the closure activities have	closure activities and submitting the closure report. closure activities. Please do not complete this been completed.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized. Disposal Facility Name:	Closure Method:		
Disposal Facility Name: Disposal Facility Permit Number:	<u>Closure Report Regarding Waste Removal Closure For Closed-loop System</u> Instructions: Please indentify the facility or facilities for where the liquids, dr.		
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) No Required for impacted areas which will not be used for future service and operations: Soli Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Revegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Closure Notice (surface owner and division) Port of Deed Notice (required for on-site closure) Plot Plan (for on-site closure) priso Confirmation Sampling Analytical Results (frequired for on-site closure) Sing Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique NAD: [1927] 1983 25 Descina Colosure Certification: 26 Description the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. 1 also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. 28 Sperator Closure Certification: Signature: Date: <td>Disposal Facility Name:</td> <td>Disposal Facility P</td> <td>ermit Number:</td>	Disposal Facility Name:	Disposal Facility P	ermit Number:
□ Yes (If yes, please demonstrate compliance to the items below) □ No Required for impacted areas which will not be used for future service and operations: □ Site Reclamation (Photo Documentation) □ Soil Backfilling and Cover Installation □ Revergetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. □ Proof of Closure Notice (surface owner and division) □ Proof of Deed Notice (required for on-site closure) □ Di Plan (for on-site closures and temporary pits) □ Confirmation Sampling Analytical Results (required for on-site closure) □ Disposal Facility Name and Permit Number □ Soil Backfilling and Cover Installation □ Revegetation Application Rates and Seeding Technique □ Site Reclamation (Photo Documentation) ○ On-site Closure Location: LatitudeLongitudeNAD: □ 1927 □ 1983 25 Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Pr		• •	
Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Site Reclamation (Photo Documentation) On-site Closure Location Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude Longitude Site Reclamation and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. 1 also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Print):		or in areas that will not	be used for future service and operations?
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Print):	 Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation 	tions:	
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Print):	 mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) 		
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Signature: Date:	I hereby certify that the information and attachments submitted with this closure		
	Name (Print):	Title:	
e-mail address: Telephone:	Signature:	Date:	
	e-mail address:	Telephone:	

District I - 1625 N. French Dr., Hobbs, NM 88240 State of New Mexico

Vistrict II 1301 W. Groad Avenue, Artosia, NM 88210 District III 1000 Rio Prozos Rd., Artec, IIM 87410 District IV

1220 5. St. Francis Dr., Santa Fe, NM 87505

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santo Fe, NM 87505

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease-4 Copies Fee Lease-3 Copies

AMENDED REPORT

		WELL LOCATION AND	ACREAGE DEDI	CATION PLAT	Γ		
AP	Number	Pool Code			Poct Nome		
		96010		BIGUE E	lane_		
Property Co	rde -		operty Nome				Well Number
		LIBBY MINE	RALS LLC 1	931		5	9-1-K
OGRID No.		Q	erator Name				Elevation
251905	5	RELIANT EXPLORATIO	N & PRODU	JCTION, L	LC.		4438'
		Surf	ace Location				
UL or lot no. Section	Township	Range	ot idn Feet from the	North/South line	Feet from the	East/West line	County
К 9	19 NORTH	31 EAST, N.M.P.M.	1700'	South	1899'	WEST	HARDING
		Bottom Hole Locat					
UL or lat na. Section	Township	Rança	ol Idn Feet from the	North/South line	Feel from the	East/West line	County
1.1							
Dedicated Acres	Joint or Infill	Consc5dation Code Order No.					

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	1				OPERATOR CERTIFICATION
					I hereby certify that the information contained herein is true and complete to the best of my knowledge and bollet, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location ar has a right to drill this well at this location pursuant to a contract with an owner of such a
					mineral or working interest, or to a voluntary pooling ogreament or a compulsary pooling order heretofore antered by the division.
					Signature Data
					Printed Name
			SURFACE LOCATION NEW MEXICO EAST NAD 1927 Y=1779577.6 X=701372.8 LAT:: N 35.8891476. LONG: W 103.6534970		SURVEYOR CERTIFICATION I hereby certify that the well location shown an discription with the solution field noise of course surveys node by me ur under not survey to had the some is the and the solution and the
	1899`				
		1760'			Date of Survey Signature origination Strangorijik
		21			Serry Alsel 2/B/2008 Cortificate Humber 15077
))				J	WO# 071217WL-0 (Rev. A) (KA)



LOCATION SPECIFICATION FOR STEEL PITS

(PICTURE NOT TO SCALE)



Cellar can be 4X4X4 if using a screw-on wellhead

Hydrogeological Data (Based on Appropriate Requirements of 19.15.17.11 NMAC)

Well Name:

Libby Minerals LLC 1931 No. 9-1-K

Topography:

This location is within the Great Plains Physiographic Province, with flat to rolling prairie and scattered hills and bluffs. The land gradually rises westward, giving way to the frontal ranges of the Rocky Mountains. Elevation of the referenced well is approximately 4438 feet MSL. The location is in lowlands just east of Ute Creek (see Siting Criteria Map II, attached).

Soils:

Soils within this region have been mapped by the Natural Resources Conservation Service. The following soil unit occurs within the proposed project area:

Kinkead clay loam, alkali:

This soil type is generally found on plains at an elevation of 3800 to 5000 feet. It is made up of 80% Kinkead and similar soils. Kinkead soils, typically found at the toeslopes of alluvial fans, are formed from calcareous, loamy alluvium derived from sandstone and shale. They are typically found on slopes less than 3%. These soils are well drained with a high available water capacity. The capacity of the most limiting layer to transmit water is moderately low or moderately high. The frequency of flooding is rare, and there is no frequency of ponding. The typical profile for Kinkead soils is clay loam at 0 to 7 inches, clay at 7 to 42 inches, and sandy clay loam at 42 to 60 inches.

Source: United States Department of Agriculture, Natural Resources Conservation Service. 2008. Soil Survey Geographic (SSURGO) Database for Harding County, New Mexico. Accessed February 2009.

Geology:

The geology of this region has been mapped by the United States Geological Survey. Geology of this area is mapped as Alluvium, upper and middle Quaternary.

Source: United States Geological Survey. Updated December 2007. Preliminary Integrated Geologic Map Databases for the United States: Central States: Montana, Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Iowa, Missouri, Arkansas, and Louisiana. <u>http://tin.er.usgs.gov/geology/state/state.php?state=NM</u>. Accessed February 2009.

Surface Hydrology:

Northeastern New Mexico is drained by the Arkansas River and its tributary, the Canadian River. The location would drain to the west into Ute Creek, a continuously flowing tributary of the Canadian River. Topographic maps indicate that the pit would be approximately 300 feet from this creek (see Siting Criteria Map II, attached). Thus, field measurements were taken. The actual distance from the pit to the creek would be approximately 452 feet.

Ground Water Hydrology:

This location is within central Harding County, New Mexico, within the Great Plains Physiographic Province. The High Plains aquifer extends westward into eastern Harding County, but in the proposed project region there is no principal aquifer. Aquifers do not exist here, yield too little water to wells to be significant, or yield sufficient water to supply local requirements but are not extensive enough to be classified as a major aquifer.

Depth to groundwater is unknown at this location, because the nearest recorded wells are at least 3.0 miles from the location (see Siting Criteria Map I and iWaters reports, attached). The nearest water wells identified on iWaters are listed below:

Well	Distance from Proposed Project	Depth to Water
TU 1363	approximately 3.0 miles north-northwest	24 feet
	Page 8 of 23	Libby Minerals LLC 1931 No. 9-1-K

TU 691

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Source: United States Geological Survey. 2001. Groundwater Atlas of the United States: Arizona, Colorado, New Mexico and Utah. USGS Publication HA 730-C; <u>http://capp.water.usgs.gov</u>.

New Mexico Office of the State Engineer. August 2008. iWaters database. <u>http://iwaters.ose.state.nm.us:7001/iWATERS/</u>. Internet accessed February 2009.

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Siting Criteria Compliance Demonstrations (Based on Appropriate Requirements of 19.15.17.10 NMAC)

Depth to groundwater (should not be less than 50 feet):

Depth to groundwater is unknown at this location, because the nearest recorded wells are at least 3.0 miles from the location (see Siting Criteria Map I and iWaters reports, attached). The nearest water wells identified on iWaters are listed below:

Well	Distance from Proposed Project	Depth to Water
TU 1363	approximately 3.0 miles north-northwest	24 feet
TU 691	approximately 4.6 miles east-northeast	No data

Distance to watercourse (should not be within 300 feet of a continuously flowing watercourse or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake):

Topographic maps indicate that the pit would be approximately 300 feet from Ute Creek (see Siting Criteria Map II, attached). Thus, field measurements were taken. The actual distance from the pit to the creek would be approximately 452 feet.

Distance to buildings (should not be within 300 feet of a permanent residence, school, hospital, institution, or church):

The pit would not be within 300 feet of any of these locations (see Siting Criteria Map I).

Distance to springs or wells (should not be within 500 feet of a private, domestic fresh water well or spring used by less than five (5) households or within 1000 feet of any other fresh water well or spring):

The pit would not be within 500 feet of any well or spring (see Siting Criteria Map I).

<u>Presence within incorporated area (should not be within incorporated municipal boundaries or within defined municipal fresh water well field covered under municipal ordinance):</u>

The pit would not be within an incorporated area or municipal fresh water well field (see Siting Criteria Map I).

Distance to wetlands (should not be within 500 feet):

The USFWS has not mapped this location for wetlands (see Wetlands map, attached). However, soils data and ortho data indicate that the location is not near a wetland.

Location above subsurface mine (should not overlie a subsurface mine):

The pit would not overlie a mine (see Mines, Mills, and Quarries map, attached).

Presence within unstable area (should not be within an unstable area):

The location would not be within an unstable area (See Siting Criteria Map II).

Presence within floodplain (should not be within a 100-year floodplain):

The location has not been mapped by FEMA (see FEMA printout, attached). However, soils data and ortho data indicated that the location is not within a floodplain.





DEPTH-TO-WATER DATA

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	New Mexico Office of the State Engineer POD Reports and Downloads										
	Township: 19N Range: 31E Sections:										
	NAD27 X: Y: Zone: Search Radius:										
	County: Basin: Number: Suffix:										
	Owner Name: (First) (Last) Non-Domestic Domestic										
	POD / Surface Data ReportAvg Depth to Water ReportWater Column Report										
umber	POD / SURFACE DATA REPORT 02/17/2009 (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) Depth Depth Water (in feet) r Tws Rng Sec q q q Zone X Y Well Water Column s found, try again										
20105											
	New Mexico Office of the State Engineer POD Reports and Downloads										
_	Township: 20N Range: 31E Sections:										
	NAD27 X: Y: Zone: Search Radius:										
	County: Basin: Number: Suffix:										
	County: Basin: Number: Suffix: Owner Name: (First) (Last) Non-Domestic Domestic										

New Mexico Office of the State Engineer POD Reports and Downloads



WATER COLUMN REPORT 02/17/2009

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest)									Depth	Water	(in feet)
POD Number	Tws	Rng Se	ec q	РР	Zone	x	Y	Well	Water	Column	
TU 00513	19N	30E 04	4 2	3 1				60			
TU 01698 POD1	19N	30E 04	4 3	4 1				85	70	15	

Record Count: 2

New Mexico Office of the State Engineer POD Reports and Downloads



POD / Surface Data ReportAvg Depth to Water ReportWater Column Report

WATER COLUMN REPORT 02/17/2009

	· •			3=SW 4=SE) o smallest)			Depth	Depth	Water	(in feet)
POD Number	Tws	Rng Sec	e d d d	Zone	х	Y	Well	Water	Column	
TU 00568	19N	32E 01	2 1 1				250			
TU 00689	19N	32E 03	432				100			
TU 00691	19N	32E 07	222				93			
<u>TU 00692</u>	19N	32E 14	324				71			
TU 00677	19N	32E 15	121				48			
TU 00678	 19N	32E 20	233				60			
TU 00679	19N	32E 21	4 1 2				60			
TU 00680	19N	32E 24	144				108			
TU 00690	19N	32E 26	344				110			
TU 00682	19N	32E 28	121				100			
TU 00676	 19N	32E 29	314				100			
TU 00671	 19N	32E 29	331				100			
TU 00590	19N	32E 36	4 1 4				150			

Record Count: 13

Source: New Mexico Office of the State Engineer. August 2008. iWaters database. <u>http://iwaters.ose.state.nm.us:7001/iWATERS/</u>. Internet accessed February 2009.

WETLAND DATA



Source: U.S. Fish and Wildlife Service National Wetlands Inventory. Updated March, 2009. http://www.fws.gov/wetlands/Data/mapper.html. Accessed March 2009.

100-Year Floodplain Data



Source: FEMA Map Service Center.

http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&lan gld=-1. Accessed February 2009.

MINES, MILLS, AND QUARRIES IN NEW MEXICO

MMQonline Public Version



http://www.emnrd.state.nm.us/MMD/MMQonline/MMQonline-PUBLIC-PROD.mwf

Tuesday, March 31, 2009 11:13 AM

Source: New Mexico Energy, Minerals and Natural Resources Department, Division of Mining and Minerals. Database. 2008. <u>http://www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm</u>. Internet accessed February 2009.

Design Plan (Based on Appropriate Requirements of 19.15.17.11 NMAC)

Design and construction specifications for this temporary pit are as follows:

- Prior to constructing the pit, topsoil would be stripped and stockpiled for use as final cover or fill at the time of closure.
- An upright sign (at least 12" x 24" with lettering at least 2" in height) would be placed conspicuously on the fence surrounding the pit, unless the site has an existing well sign (complying with 19.15.3.103 NMAC). The sign would be posted in a manner and location such that the legend can be easily read, and would contain the following information: operator's name, legal location (quarter-quarter or unit letter, section, township, and range), and emergency telephone number(s).
- If an adequate surrounding perimeter fence does not already prevent unauthorized access to the well site or facility, the pit would be fenced or enclosed in a manner that prevents unauthorized access. The fence would be at least four (4) foot in height with at least four (4) strands of barbed wire evenly spaced between the top and bottom. Fences would be maintained in good repair. During drilling or workover operations, three (3) sides of the pit would be fenced; the side adjacent to the drilling or workover rig would remain open only during such operations.
- The pit would be designed and constructed to ensure the confinement of liquids.
- The pit would be constructed with a properly constructed foundation and interior slopes consisting of a firm, unyielding base. The pit would be smooth and free of rocks, debris, sharp edges, or irregularities to prevent the liner's rupture or tearing. Slopes would be no steeper than two (2) horizontal feet to one (1) vertical foot (2H:1V).
- The pit would have a geomembrane liner with 20-mil string-reinforced LLDPE or its equivalent (approved by the division district office). This liner would be composed of an impervious, synthetic material resistant to petroleum hydrocarbons, salts, and acidic and alkaline solutions. The liner would be resistant to ultraviolet light. The liner would comply with EPA SW-846 method 9090A.
- Qualified personnel would perform field seaming. Liner seams would be minimized, particularly in corners and irregularly shaped areas. Field liner seams would be welded. Factory-welded seams would be used where possible. Prior to field seaming, liners would be overlapped four (4) to six (6) inches and would be oriented parallel to the line of maximum slope (along, not across, the slope).
- Construction would avoid excessive stress-strain on the liner.
- Geotextile would be used under the liner where needed to reduce localized stress-strain or protuberances that may compromise the liner's integrity.
- The edges of all liners would be anchored in the bottom of a compacted, earth-filled trench that is at least 18" deep.
- The liner would be protected from any fluid force or mechanical damage at any point of discharge into or suction from the pit.
- A berm, ditch, proper sloping, or other diversion would be constructed around the pit to prevent run-on of surface water. During drilled operations, the edge of the pit adjacent to the drilling or workover rig may not have protection if the pit is being used to collect liquids escaping from the rig and run-on will not result in a breach of the pit.
- The volume of the pit would not exceed 10 acre-feet, including freeboard.

Operating & Maintenance Plan (Based on Appropriate Requirements of 19.15.17.12 NMAC)

Operating and maintenance specifications for this temporary pit are as follows:

- The pit would be maintained to contain liquids and solids, prevent contamination of fresh water, and protect public health of the environment.
- All drilling fluids would be recycled, reused, reclaimed, or disposed of in a manner approved by division rules and that prevents contamination of fresh water and protects public health and the environment.
- Hazardous waste would not be discharged into or stored in the pit.
- If the pit liner's integrity is compromised or if penetration of the liner occurs above the liquid's surface, the appropriate division district office would be notified within 48 hours of the discovery, and the liner would be repaired or replaced.
- If the pit develops a leak or if any penetration of the liner occurs below the liquid's surface, all liquid above the damake or leak line would be removed within 48 hours, the appropriate division district office would be notified within 48 hours, and the liner would be repaired or replaced.
- The injection or withdrawal of liquids from the pit would be accomplished via a header, diverter, or other hardware that prevents damage to the liner by erosion, fluid jets, or impact from installation and removal of hoses or pipes.
- Pit operation would prevent the collection of surface water run-on.
- An oil-absorbent boom or other device would be installed and maintained onsite to contain and remove oil from the pit's surface.
- Only fluids used or generated during drilling or workover processes would be discharged into the pit. The pit would remain free of miscellaneous solid waste or debris. A tank made of steel or other division district office-approved material would be used to contain hydrocarbon-based drilling fluids. Immediately after cessation of a drilling or workover operation, any visibly or measurable layer of oil would be removed from the surface of the pit.
- At least two (2) feet of freeboard would be maintained.
- The pit would be inspected at least once daily while the drilling or workover rig is onsite. Thereafter, the pit would be inspected weekly as long as liquids remain within it. An inspection log would be maintained and made available to the division district office upon request. A copy of the log would be filed with the division district office at the time of pit closure.
- All free liquids would be removed from the pit within 30 days from release of the drilling or workover rig. On form C-105 or C-103, the date of the drilling or workover rig's release would be noted. If necessary, an extension of up to three (3) months may be requested from the division district office; this extension may or may not be granted.
- Any liquids used for cavitation would be removed from the pit within 48 hours after completing cavitation. If it is not feasible to access the location within 48 hours, this would be demonstrated to the district office's satisfaction and additional time would be requested.

Closure Plan

(Based on Appropriate Requirements of Subsection C, 19.15.17.9 NMAC & 19.15.17.13 NMAC)

Closure specifications for this temporary pit are as follows:

- The pit would be closed within six (6) months from the date that the drilling or workover rig is released. If necessary, the division district office may grant an extension not to exceed three (3) months.
- All liquids from the pit would be removed prior to closure. Liquids would be disposed of at the Sundance Services, Inc. Parabo Disposal Facility (Permit No. 010003), unless they are recycled, reused, or reclaimed in a division district office-approved manner.
- All contents, including synthetic pit liners, would be excavated from the pit and transported to Sundance Services, Inc. Parabo Disposal Facility (Permit No. 010003).
- The soils beneath the pit would be tested to determine whether a release occurred. A five-point composite sample would be collected. In addition, grab samples would be gathered from any area that is wet, discolored, or showing evidence of a release. The samples would be sent to an approved laboratory and analyzed for benzene, total BTEX, TPH, the GRO and DRO combined fraction, and chlorides. The following should not be exceeded:
 - Benzene (as determined by EPA SW-846 method 8021B or 8260B or other division-approved EPA method): 0.2 mg/kg

0

• BTEX (as determined by EPA SW-846 method 8021B or 8260B or other division-approved EPA method): 50 mg/kg

0

- TPH (as determined by EPA SW-846 method 418.a or other division-approved EPA method): 2500 mg/kg
- 0
- GRO and DRO combined fraction (as determined by EPA SW-846 method 8015M): 500 mg/kg

0

• Chlorides (ads determined by EPA method 300.1): 500 mg/kg or background concentration, whichever is greater

The division would be notified of the results on form C-141, at which point the division may require additional delineation.

- If it is determined that a release has occurred, Reliant would comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.
- If it is determined that a release has not occurred, or that any release doesn't exceed the above-specified concentrations, the pit excavation would be backfilled with compacted, non-waste-containing, earthen material. A division-prescribed soil cover would be constructed and the site would be recontoured and revegetated, per Subsections G, H, and I of 19.15.17.13 NMAC:
 - All areas associated with the pit that are no longer being used would be substantially restored to the condition that existed prior to oil and gas operations by placement of the soil cover (detailed below), recontouring to match original contours and surrounding topography, and revegetating (detailed below).
 - If an alternative to the revegetation requirements is required to prevent erosion, protect fresh water, or protect human health and the environment, this alternative would be proposed to the surface owner. The proposed alternative, with written documentation demonstrating that the surface owner approves the alternative, would be submitted to the division for approval.

- Soil cover would consist of the background thickness of topsoil or one (1) foot of material suitable for establishing vegetation at the site, whichever is greater.
- Soil cover would be constructed to the site's existing grade and would prevent ponding of water and erosion of the cover material.
- The first growing season following pit closure, all disturbed areas associated with the pit and no longer being used would be seeded or planted.
- Seeding would be accomplished by drilling on the contour whenever practical, or by other division-approved methods. Vegetative cover equaling 70% of the native perennial vegetative cover (unimpacted by overgrazing, fire, or other damaging intrusion) would be obtained. This cover would consist of at least three (3) native plant species, including one (1) grass species but not including noxious weeds. That cover would be maintained through two (2) successive growing seasons, during which time no artificial irrigation would occur.
- Seeding or planting would be repeated until the required vegetative cover is successfully achieved.
- When conditions aren't favorable for the establishment of vegetation (such as during periods of drought), the division would be contacted for approval to delay seeding or planting, or for approval to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing, etc.
- The division would be notified when seeding or planting is completed, and when successful revegetation has been achieved.
- Within 60 days of closure, completion, a closure report would be submitted on form C-144, with necessary attachments, to document closure activities, including sampling results, a plot plan, and backfilling details. In this closure report, Reliant would certify that all information in the report and attachments is correct and that Reliant has complied with all applicable closure requirements and conditions specified in the approved Closure Plan. A plat of the temporary pit location would be provided on form C-105.

Reliant Exploration and Production LLC 300 N. Marienfeld, Suite 600 Midland, Texas 79701

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April 20, 2009

VIA UPS NEXT DAY AIR

Mr. Ed Martin District IV Supervisor New Mexico Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, New Mexico 87505

Re: Reliant Exploration & Production LLC OGRID Number: 251905 Forms C-101, C-102, C-144

Dear Mr. Martin:

Reliant Exploration and Production LLC hereby submits for filing with the State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division ("OCD"), the following:

- (i) C-101, Application for Permit to Drill, Well No. 11-1-K, Section 11, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- C-102, Well Location and Acreage Dedication Plat, Well No. 11-1-K, Section 11, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (iii) C-144, Application for Pit Permit, Well No. 11-1-K, Section 11, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (iv) C-101, Application for Permit to Drill, Well No. 8-1-K, Section 8, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (v) C-102, Well Location and Acreage Dedication Plat, Well No. 8-1-K, Section 8, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (vi) C-144, Application for Pit Permit, Well No. 8-1-K, Section 8, Township
 19 North, Range 31 East, NMPM, Harding County, NM;

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- (vii) C-101, Application for Permit to Drill, Well No. 5-1-K, Section 5, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (viii) C-102, Well Location and Acreage Dedication Plat, Well No. 5-1-K, Section 5, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (ix) C-144, Application for Pit Permit, Well No. 5-1-K, Section 5, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (x) C-101, Application for Permit to Drill, Well No. 9-1-K, Section 9, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xi) C-102, Well Location and Acreage Dedication Plat, Well No. 9-1-K, Section 9, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xii) C-144, Application for Pit Permit, Well No. 9-1-K, Section 9, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xiii) C-101, Application for Permit to Drill, Well No. 10-1-K, Section 10, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xiv) C-102, Well Location and Acreage Dedication Plat, Well No. 10-1-K, Section 10, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xv) C-144, Application for Pit Permit, Well No. 10-1-K, Section 10, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xvi) C-101, Application for Permit to Drill, Well No. 14-1-F, Section 14, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xvii) C-102, Well Location and Acreage Dedication Plat, Well No. 14-1-F, Section 14, Township 19 North, Range 31 East, NMPM, Harding County, NM;

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- (xviii) C-144, Application for Pit Permit, Well No. 14-1-F, Section 14, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xix) C-101, Application for Permit to Drill, Well No. 15-1-F, Section 15, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xx) C-102, Well Location and Acreage Dedication Plat, Well No. 15-1-F, Section 15, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xxi) C-144, Application for Pit Permit, Well No. 15-1-F, Section 15, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xxii) C-101, Application for Permit to Drill, Well No. 16-1-F, Section 16, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xxiii) C-102, Well Location and Acreage Dedication Plat, Well No. 16-1-F, Section 16, Township 19 North, Range 31 East, NMPM, Harding County, NM;
- (xxiv) C-144, Application for Pit Permit, Well No. 16-1-F, Section 16, Township 19 North, Range 31 East, NMPM, Harding County, NM;

Please let me know if you have any questions or need additional information. Thank you

Kindest Regards,

Reliant Exploration and Production LLC

Frank A. Hunold, Jr. General Counsel Tel. (432) 617-4211 Email: <u>thunold@reliantholdingsltd.com</u> Martin New Mexico OCD April 20, 2009 Page 4

Cc: Earl DeBrine Scott Vanderburg Vance Vanderburg Freddie Vanderburg